



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,464	01/20/2004	Bruce M. Harper	M3221	4385
35219 7590 05/13/2008 WESTERN DIGITAL TECHNOLOGIES, INC. ATTN: RENEE M. QUICK 20511 LAKE FOREST DR. E-118H LAKE FOREST, CA 92630				
EXAMINER VARGOT, MATHEU'D				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
05/13/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/761,464

**Applicant(s)**

HARPER ET AL.

**Examiner**

Mathieu D. Vargot

**Art Unit**

1791

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/806)  
Paper No(s)/Mail Date 1/20/04 & 1/17/06

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

1.Applicant's election without traverse of Species A, claims 1-7 in the reply filed on February 11, 2008 is acknowledged.

2.Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4 and 5 are considered to be allowable over the prior art in that such art does not disclose, teach or suggest the overall aspects of the thermal expansion of the ball bushing securing the ring portion to an inner dimension of the embossing foil to center the substrate or the outer sleeve lifting the center portion of the embossing foil to facilitate substrate separation therefrom.

3.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harper -120 in view of Allen et al (see col. 7, lines 41-43). Harper -120 (Fig. 3) discloses the basic claimed apparatus including a die (335) having a bottom surface, an embossing foil (362) disposed above the bottom surface, and a mandrel (340) having a rod portion that extends through the central portion of the die, the mandrel to receive a substrate (disc 380) on its tapered nose (342). Essentially, the primary reference fails to teach the instant ball bushing surrounding the rod portion and a ring portion disposed as set forth in instant claim 1—ie, mechanical structure that

would be required to ensure that the mandrel is centered. Indeed, it is submitted that the structure missing from the primary reference—which teaches an air bearing to keep the mandrel centered-- is in fact conventional structure that would form a mechanical bearing or bushing to keep the mandrel centered. Allen et al discloses that air bearings are mechanical equivalents to linear ball bushings/bearings and one of ordinary skill in this art would have been expected to know of this and the mechanical structure required to form a ball bushing. In view of the disclosure of Allen et al, it is submitted prime facie obvious to replace the air bearing of Harper -120 with a ball bushing arrangement as set forth in the instant claims dependent on the exact method desired to center the mandrel. The outer sleeve as set forth in instant claim 3 would be structure readable on the bore of the die that the mandrel of Harper -120 slides within, or would have been an obvious mechanical equivalent thereover. It is well known to provide necessary mechanical sleeves to house other mechanical elements like bushings and one of ordinary skill in the art would have been expected to know of these. The elastomeric pad of instant claim 6 is taught as 163 in Fig. 1 and such would have been an obvious modification to the embodiment of Figure 3 to ensure that the substrate is pressed uniformly.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on 571 272-1176. The fax phone

Art Unit: 1791

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot  
May 10, 2008

/Mathieu D. Vargot/  
Primary Examiner, Art Unit 1791